Abstract

In a method of measuring a temperature value associated with melting, softening or decomposition of sample substances, an array of samples is deposited onto a support tray. The support tray is placed onto a heating device provided with temperature sensing means, the support tray is illuminated, and the array of samples is observed by a imaging device. WNle varying the temperature of the heating device, the image data from the imaging device is fed to an image recording device and temperature values associated with each feed of image data are also recorded. The image data is reviewed to detect changes in the image, such as image intensity, at each or selected sample locations, and the temperature of the heating device at an image change associated with a change in state of a sample is logged. Image processing software may be used to detect changes in the image, for example in the intensity of the image, at each sample location. The method may be used as a means for rapidly obtaining a melting point value for comparison of the physical characteristics of the members of a library of samples, especially polymer samples.